INDEX TO 1986 ARTICLES

By issue . . .

JANUARY

BG—1 1986 Welding and Fabricating Buyers Guide

FEBRUARY

28 Essen Fair Sparks World Interest
30 Clean Air For Fabricating Shops
34 Chemical Hazards—The Deadline Approaches
39 Resistance Welding Is Here To Stay
44 Microprocessors Enhance Controls
46 Seam Welding of Coated Sheet Made Easy
52 Plasma Arcs Weld Carbon Steel Parts
54 Welding Engineer Data Sheet No. 521

MARCH

49 Welded Trusses: A Clear View Of Shamu
54 Parts Untouched By Human Hands
59 Power-Plant Pipe Must Be Leak-Free
65 Safety Practice For Oxyfuel Work
68 Welding Engineer Data Sheet No. 522
70 How To Rate Grinding Wheels
73 Managing Your Welding Operation —Part 1: The Cost Estimate
79 When A Weld Fails
84 Do's And Don'ts Of Joint Design
88 Japanese Weld LNG Pipeline
91 Change To RSW Raises Door Output

APRIL

45 Guide To Welding Robots And Accessories
48 Seeing-Eye Robots Keep Autos Rolling
55 Software Simulates A Robot Cell
60 Steel Plate Fabricators Meet
71 Condenser-Discharge RW Welding
74 Lasers Speed Cutting And Welding

MAY

24 Sleek Bridge Lines Take Two Prizes
29 Ironworkers—Shop Do-It-Alls
32 Welding Engineer Data Sheet No. 523
38 Tips From A Versatile Brazer
40 Brazing Rebuilds Airplane Mufflers
44 Remote Welders Repair Reactors
50 Short-Arc And Spray Transfer Made Simple

JUNE

28 At Robots 10: Flexible Work Cells
33 Plasma And Tig Join Bomber Wing Panels
37 Inertia Welding For Fuel Mandrels
41 Brazing Foil Joins Fins To Boiler Tubes
45 Aerospace Sensor Uses EB Welding
48 Tap A Big Market—Military Hardware
51 Managing Your Welding Operation —Part 2: Labor Costs
57 Who Should Attend Industry Shows?
60 Welding Engineer Data Sheet No. 524

JULY

27 Welding Sales Were So-So In 1985
36 Organizing Manufacturing Technology
43 Weld Surfacing Saves Mill Casters
46 Sprayed Aluminum Covers Boiler Tubes
51 Hardsurfacing: An Overview of The Process
59 What's Ahead In Surfacing
63 Dexterous Robot Plasma Sprays Engine Parts
66 Thermal-Spray Coaters Meet
72 1986 TechLit File

AUGUST

24 Trimming The Cost Of Sheet-Metal Parts
33 Computers Control Part Preparation
36 Useful Tips For Laser Welding
40 Transit Track On Welded Girders
42 Hardfacing II: Consumables
48 Guide To Manufacturing Technology Development
50 Training Trims Welding Waste
54 Welding Engineer Data Sheet No. 525

SEPTEMBER

32 Organization Assures Success In Quality Control
38 NDT Reference File
44 Quality Conference Delivers NDT Update
49 Managing Your Welding Operation —Part 3: Control Of Materials
56 How To Compare Resistance Welders
60 Watch Your Step In The Shop
63 Who Resists New Technology?
67 Smart Managers Reduce Overwelding

OCTOBER

32 Gas-Shielded FCAW With Better Wires
39 Mig Welding: A Second Look
44 Combining Base Metal Properties Yields Economies
52 Computers Control Tig Welding
59 Smart Managers Reduce Arc Time
63 Repairing Throgs Neck Bridge
67 Zinc Metallizing Protects A Bridge

NOVEMBER

26 Use Technology To Beat The Odds
32 Innovate To Compete In Lift Trucks
37 Leading The Field Cooking With Steam
43 Temco Automates To Keep Trucking
47 Smart Managers Eliminate Scrap

DECEMBER

23 Thermal Sprayers Put On A Big Show
26 Cutting A Path To Higher Profits
37 Railroad Welders Work To One Code
40 Hardfacing III: The Wear Processes

continued on page 50

INDEX TO 1986 ARTICLES

By issue . . .

JANUARY

BG—1 1986 Welding and Fabricating Buyers Guide

FEBRUARY

28 Essen Fair Sparks World Interest
30 Clean Air For Fabricating Shops
34 Chemical Hazards—The Deadline Approaches
39 Resistance Welding Is Here To Stay
44 Microprocessors Enhance Controls
46 Seam Welding of Coated Sheet Made Easy
52 Plasma Arcs Weld Carbon Steel Parts
54 Welding Engineer Data Sheet No. 521

MARCH

49 Welded Trusses: A Clear View Of Shamu
54 Parts Untouched By Human Hands
59 Power-Plant Pipe Must Be Leak-Free
65 Safety Practice For Oxyfuel Work
68 Welding Engineer Data Sheet No. 522
70 How To Rate Grinding Wheels
73 Managing Your Welding Operation —Part 1: The Cost Estimate
79 When A Weld Fails
84 Do's And Don'ts Of Joint Design
88 Japanese Weld LNG Pipeline
91 Change To RSW Raises Door Output

APRIL

45 Guide To Welding Robots And Accessories
48 Seeing-Eye Robots Keep Autos Rolling
55 Software Simulates A Robot Cell
60 Steel Plate Fabricators Meet
71 Condenser-Discharge RW Welding
74 Lasers Speed Cutting And Welding

MAY

24 Sleek Bridge Lines Take Two Prizes
29 Ironworkers—Shop Do-It-Alls
32 Welding Engineer Data Sheet No. 523
38 Tips From A Versatile Brazer
40 Brazing Rebuilds Airplane Mufflers
44 Remote Welders Repair Reactors
50 Short-Arc And Spray Transfer Made Simple

JUNE

28 At Robots 10: Flexible Work Cells
33 Plasma And Tig Join Bomber Wing Panels
37 Inertia Welding For Fuel Mandrels
41 Brazing Foil Joins Fins To Boiler Tubes
45 Aerospace Sensor Uses EB Welding
48 Tap A Big Market—Military Hardware
51 Managing Your Welding Operation —Part 2: Labor Costs
57 Who Should Attend Industry Shows?
60 Welding Engineer Data Sheet No. 524

JULY

27 Welding Sales Were So-So In 1985
36 Organizing Manufacturing Technology
43 Weld Surfacing Saves Mill Casters
46 Sprayed Aluminum Covers Boiler Tubes
51 Hardsurfacing: An Overview of The Process
59 What's Ahead In Surfacing
63 Dexterous Robot Plasma Sprays Engine Parts
66 Thermal-Spray Coaters Meet
72 1986 TechLit File

AUGUST

24 Trimming The Cost Of Sheet-Metal Parts
33 Computers Control Part Preparation
36 Useful Tips For Laser Welding
40 Transit Track On Welded Girders
42 Hardfacing II: Consumables
48 Guide To Manufacturing Technology Development
50 Training Trims Welding Waste
54 Welding Engineer Data Sheet No. 525

SEPTEMBER

32 Organization Assures Success In Quality Control
38 NDT Reference File
44 Quality Conference Delivers NDT Update
49 Managing Your Welding Operation —Part 3: Control Of Materials
56 How To Compare Resistance Welders
60 Watch Your Step In The Shop
63 Who Resists New Technology?
67 Smart Managers Reduce Overwelding

OCTOBER

32 Gas-Shielded FCAW With Better Wires
39 Mig Welding: A Second Look
44 Combining Base Metal Properties Yields Economies
52 Computers Control Tig Welding
59 Smart Managers Reduce Arc Time
63 Repairing Throgs Neck Bridge
67 Zinc Metallizing Protects A Bridge

NOVEMBER

26 Use Technology To Beat The Odds
32 Innovate To Compete In Lift Trucks
37 Leading The Field Cooking With Steam
43 Temco Automates To Keep Trucking
47 Smart Managers Eliminate Scrap

DECEMBER

23 Thermal Sprayers Put On A Big Show
26 Cutting A Path To Higher Profits
37 Railroad Welders Work To One Code
40 Hardfacing III: The Wear Processes

continued on page 50

INDEX TO 1986 ARTICLES

By subject . . .

MONTH: Page number

AWS Show 5:25-27
Abrasion 12:40-42
Abrasive cutting 12:26-34
Agricultural equipment 8:24-30
Air filters 2:31-32
Air-carbon-arc cutting 12:26-34
Air-quality monitors 2:33
Aircraft mufflers 5:40-41 6:33-35
Alloys, for surfacing 7:45
Aluminum, GMAW of 5:54
Aluminum alloys, welding of (D.S.) 2:54
Automobiles 3:42 4:48-52 8:20
Arc cutting 12:31-32

Bevelling machinery 2:29
Boiler-tube metallizing 7:46-49
Brazing 4:55-57 5:37-39, 40-41
  cleaning for 5:38
  foil 6:41-42
Bridges 5:24-26

Cadmium braze alloys 5:39
Cans 2:46-48 5:20
Carbon steel, PAW of 2:50-52
Check valves 3:65-67
Chemical hazards 2:34-37
Composite materials 2:39
Computer-controlled equipment 8:33-35
Computer numerical control 8:24-30
Computer simulation 4:55-57
Computerized cost estimating 3:75
Continuous casters 7:43-45
Contracts, preparation of 6:48-49
Controls, resistance welding 2: 40
Conversion table, dimensions (D.S.) 6:60
Copper alloy 3:44
Cost analysis, labor 6:51-54
Cost estimating 3:73-76
Cost of welding 3:86 6:52-54

D-gun coating 7:56
Dams, for pipe welding 3:60
Design for brazing 5:37-39

EBW 6:45-46 7:55
Eddy-current testing 7:65
Electrodes
  resistance welding 2:40-41
  surfacing 8:44
Engine components 7:63-65
Erosion 12:42-43
Essen Fair 2:28-29

Fixturing 3:42, 56
Flame cutting 12:26-34
Flashback arresters 3:65-67
Flux-cored arc welding 4:30 11:39
  hardfacing 7:54
Friction welding 6:37-40 8:20
Fume-exhaust guns 2:31
Furnace brazing 5:37-39, 40-41

Garage-door fabrication 3:91-93
Gas-metal-arc cutting 6:26
Gas-metal-arc welding 3:42 5:50-54 6:26 7:53 11:24 11:40
  aluminum alloys (D.S.) 2:54
  filler metals 3:61
  heat exchangers 4:32
  of pipe 3:88-89
  shielding gases (D.S.) 8:54
Gas-tungsten-arc welding 5:44-47 6:33-35 11:40
  shielding gases (D.S.) 8:54
General ventilation 2:31-33
Globular transfer, GMAW 5:51
Grinding
  costs 3:70
  wheels 3:70
Group technology 8:26
Guns, resistance welding 2:41

Hardsurfacing processes7:51-57 8:42-46
Hazard-communication rule 2:34-37
Heat exchangers 6:41-42
Helmets, air-supplied 2:31
Holes, punching forces (D.S.) 5:32
Hospital equipment 8:33-35

Inertia welding 6:37-40
Inserts, pipe welding 3:62
Inverter power supplies 2:29
Ironworkers 5:29-35

Jet-Kote 7:56
Joint design 3:84-87 5:26
  LBW 8:38
  pipe 3:59

Kitchen equipment 9:36-37

Laser-beam surfacing 7:55
Laser-beam cutting 8:24-30 12:29-30
Laser-beam welding 5:20 6:25-26 8:36-38
Lift trucks 11:32-34
Local ventilation 2:31-33

Manufacturing development 7:36-39
Manufacturing technology 8:48-49
Materials management 9:49-54
Material safety 2:34-37
Mechanical cutting 12:26-34
Mechanized welding, cost reduction 2:24
Metallizing 7:46-49 8:46
Miami Metromover, fabrication of 8:40-41
Mig welding. See Gas-metal-arc welding.
Mill rolls, surfacing of 7:43-45

Nonmetallic materials 2:39
Nuclear reactor welding 5:44-47

Off-road vehicles 9:29
Overwelding 9:67-68
Oxyfuel surfacing 7:54-55
Oxyfuel welding and cutting 3:65-67 12:26-34
  operating procedures (D.S.) 3:68

Pipes 3:79-82
Pipe welding 3:59-62
  consumable ring 5:20
Pipelines, LNG 3:88-89
Plasma-arc cutting 8:26 12:26-34
Plasma-arc welding 2:50-52 6:33-35
  surfacing 7:54
Plasma-spray
  metallizing 7:63-65
  surfacing 7:56-57
Power-generation equipment 9:24-36
Power supplies 4:51
Press brakes 8:34-35 11:38
  punching 8:24-30
Production control 11:28-31
Punch press 8:34
Purchasing of materials 9:49-54
Purging, of pipe 3:61

Quality control 9:32-37, conference 9:44-45

Rail cars 3:42
  aluminum 12:37-38
  welding codes 12:37-38
Remote welding 5:44-47
Resistance spot welding 3:91-93
Resistance welding 2:40-41 3:54-56 4:71-73 6:27
  automotive 5:18 8:20
  capacitor discharge 4:71-73
  coated sheet 2:46-48
  condenser discharge 4:71-73
  controls 2:44-45
  machines 2:29 9:56
Respirators 2:31-32
Robotic welding 3:40 4:48-52 9:28
  automotive 8:20
  tips for 4:30-32
Robots 2:29 3:54-56 4:48-52 4:48-52, 55-57 6:28-29
  metallizing 7:63-65
  resistance-welding 5:18
Rocket engines 6:37-40

Submerged-arc surfacing 7:54
Safety 3:65-67 4:57
  survey of welding shops 9:60-61
  training 2:34-37
Sales, welding market 7:27-30
Sawing 12:26-34
Seam finders 4:48-50
Seamless pipe 3:79-82
Shears 11:38
Shearing 12:26-34
Sheathing 3:44
Sheet-metal fabrication 8:24-30
Shearing 8:24-30, 33-34
Shielding gases (D.S.) 8:54
Shipbuilding 9:33-34
Ships 3:44
Short-circuiting GMAW 5:51-54
Sizing of resistance welders 9:56-59
Spray transfer, GMAW 5:51-54
Scrap reduction 11:47-48
Shielded-metal-arc welding 11:39
  hardsurfacing 7:53
Steam cookers 11:35-41
Structural welding 3:49-51 11:26-31
Surfacing 7:59-61 8:42-46
  of alloys 7:45
  of mill rolls 7:43-45

Tanks 11:43-45
Technology implementation 9:63-64
Testing and inspection 2:48
Thermal cutting 6:27 8:34 12:26-34
Thermal-spray coating 7:46-49, 55-57 8:46 12:23-25
Titanium alloys 6:33-35
Tractors 2:22
Trade shows 6:57-58
Transformers, resistance welding 2:41

Underwater welding 8:20

Ventilation 2:22, 30-33 11:24

Water-jet cutting 12:26-34
Wear 12:40-47
Weldability, by LBW 8:37
Weld failures 3:79-82
Weld standards 8:50-52
Welder training 8:50-52